5. EIA Program for Developmental Assistance

5.1 EIA Process in World Bank

In May 1987, a series of structural changes were introduced to strengthen the Bank's environmental policies, procedures and resources. These changes had resulted in the creation of an Environment Department along with Environmental Divisions in each of the four regional technical departments, however, recently environmental divisions were vanished along with the Bank's re-organization of its structure.

In October 1989, the Operational Directive was introduced on Environmental Assessment (EA), which required an environmental assessment for all projects with possible environmental connotations. In 1999, World Bank revised this Directive and developed three documents, i.e. OP4.01, BP4.01 and GP4.01. (See Appendix 3.) By these manuals, all prospective loans needed to be screened and classified into categories depending on the nature and magnitude of probable environmental impact. There are a total of four categories. The determination of each category depends on a combination of factors: project location, sensitivity of environmental issues, nature of impact, and magnitude of impact. For example, the location of a project near sensitive and valuable ecosystems, archaeological sites, cultural and social institutions, a high density of population, water courses, etc., may give it the rating of class A, which represents the highest potential class for adverse environmental impacts.

5.1.1 Project Identification

-Screening:	To decide the nature and magnitude of the Environmental Assessment (EA) to be carried out, the process usually begins with the screening as the project is identified. In the screening, the team determines the nature and magnitude of the proposed project's potential environmental and social impacts, and assigns the project to one of the environmental categories of A, B, or C.
Category A:	*For this category, a full EA is required. Category A projects are expected to have "adverse impacts which may be sensitive, irreversible, and diverse", such as direct pollutant discharges large enough to cause degradation of air, water or soil; large-scale physical disturbance of the site and surroundings; extraction, consumption, or conversion of substantial amounts of forest and other natural resources; measurable modification of hydrologic cycles; hazardous materials in more than incidental quantities; and involuntary displacement of people and other significant social disturbance.*

Category B :	For this category a full EA is not required, but some environmental analysis is necessary. Category B projects have impacts which are "less significant, sensitive, and diverse". Few, if any of these impacts are irreversible, and remedial measures can be more easily designed". Typical Category B projects entail rehabilitation, maintenance or upgrading rather than new construction.
Category C :	For this category, no EA or other type of environmental analysis is required. Category C projects have actually a negligibly minimum direct adverse effect on the physical setting. Typical category C projects usually focus on education, family planning, health and human resource development.
Category FI:	A proposed project is classified as Category FI if it involves investment of Bank funds through a financial intermediary, in subprojects that may result in adverse environmental impacts.
Note **:**	Projects with multiple components are classified according to the component which represents the most significant adverse impact on the environment. For instance, if the category A component is the most prominent, then the full project is classified as category A.

-Scoping:	Once a project is categorized, a scoping process is undertaken to identify the key issues and develop the Terms of Reference (TOR)for the EA. It is essential to identify more precisely the relevant environmental impacts and define the project's area of influence at this stage. As a part of this process, the relevant information about the project and its significant environmental effects are faithfully disseminated to the affected local communities and NGOs, and then followed by the serious consultations with the representatives of the same groups. The main purpose of these consultations is to focus the EA on issues of concern at the local level.
-Public Consultation:	Consultation with affected communities is recognized as the key towards identifying the environmental impacts and designing their mitigation measures. The consultation with affected groups and local NGOs during at least two stages of the EA process is almost compulsory: i) at the scoping stage, shortly after the EA category has been assigned, ii) after a draft EA report has been prepared. Consultation throughout EA preparation is also generally encouraged, particularly for projects that affect peoples' livelihood and for community-based projects. In projects with major social components,

	such as that requiring involuntary resettlement or affecting indigenous people, the consultation process should involve active public participation in the EA. The project development process and the social and environmental issues should be closely linked during the consultations.

5.1.2 Preparation of EA Report

When a project is classified as category A, a full-scale EIA is normally prepared including an EIS (Environmental Impact Statement). However, category B projects are subject to a more limited EA, the nature and scope of which is determined on a case-by-case basis.

The main components of a full EA report are the following:

***-Executive Summary*:**	The Executive Summary should consist of a concise discussion of significant findings of the EA together with the recommended actions for the project.
***-Policy, Legal and Administrative Framework*:**	The policy, legal and administrative framework within which the EA is prepared, must be thoroughly discussed. The environmental requirements must be pointed out and properly explained to the co-financiers, if any.
***-Project Description*:**	The staff should provide a concise description of the project's geographic, ecological, social and temporal implications, including any off-site investments that may be required by the project, such as dedicated pipelines, access roads, power plants, water supply, housing and raw material and product storage materials.
***-Baseline Data*:**	The baseline data provides the description of relevant physical, biological, and socioeconomic conditions and also includes the assessment of the dimensions of the project area, pointing out to any possible changes which could be anticipated before the project begins. This information is very vital for the preparation of EA, and provides the valuable data on current and proposed development activities within the project area, even if they are not directly connected to the project.

5.1.3 Appraisal Process

***-Impact Assessment*:**	This is the first step in the appraisal process and includes the identification and assessment of good as well as adverse impacts, which are likely to result from the proposed project. The impact assessment should also identify any residual adverse impacts that cannot be mitigated. Various opportunities for the environmental improvement and

	further enhancement should be thoroughly explored. The range and quality of available data, including any key data gaps and uncertainties associated with predictions should be specifically identified/estimated. The topics that do not require any further attention should be categorically specified.
***-Analysis of Alternatives*:**	The main objective of EA is to assess investment alternatives from an environmental perspective. This is, in fact, a more proactive side of EA where the design of the project is further improved through consideration of the other alternatives. This approach is therefore different from a purely defensive task of reducing the adverse impacts of a given design. The Bank's EA OD actually calls for the systematic comparison of the proposed investment design, site, technology, and operational alternatives in terms of their potential environmental impacts. It also considers the capital and recurring costs, the suitability under local conditions, and the institutional, training and monitoring requirements. For each alternative, the environmental costs and benefits should be quantified so as to represent them quantitatively. The economic values should also be attached to them where feasible. The basis for the selected alternative should also be stated specifically.
***-Public Consultation*:**	Consultation with affected communities is recognized as a vital key towards identifying the environmental impacts and designing the effective mitigation measures. The Bank's policy requires consultation with affected groups and local NGOs during at least two stages of the EA process: (1) at the scoping stage, shortly after the EA category has been assigned, and (2) after a draft EA report has been prepared. Consultation throughout EA preparation is also generally encouraged, particularly for projects that affect peoples' livelihood and for community-based projects. In projects with major social components, such as those requiring involuntary resettlement or affecting indigenous people, the consultation process should involve the active public participation in EA and project development process. The social and environmental issues should also be properly linked to the public consultation / participation in the development process.

5.1.4 Implementation Plan

***-Mitigation or Management Plan*:**	A mitigation plan consists of a set of measures to be taken during the implementation of the project. During the operation, the focus of these measures is to eliminate, offset, or reduce the resulting adverse environmental impacts to the acceptable levels. The plan identifies the

	feasible and cost-effective measures and estimates their potential environmental impacts, capital and recurring costs and institutional, training and monitoring requirements. The plan should also provide the details on the proposed work programs and schedules to help ensure that the proposed environmental actions are well coordinated with construction and other project activities throughout the implementation of the project. The plan should also consider compensatory measures if mitigation measures are not feasible or cost effective.
***-Environmental Monitoring Plan*:**	This plan specifies the parameters for the monitoring process, as to who will carry out the monitoring, and how much will it cost, and what other inputs, such as training etc. would be necessary.
-Project Implementation:	The borrower is responsible for implementing the project as agreed and outlined in the approved EA report. The Bank supervises the implementation of environmental aspects dutifully as the integral part of the overall project supervision, even using the environmental specialists when necessary.

5.1.5 Environmental Impact Evaluation

-EIA Review & Project Appraisal (Evaluation of EIS):	Once the draft of EIA report is finalized, the borrower submits it to the Bank for review by the environmental specialists. If it is found satisfactory, then the Bank project team is authorized to proceed with the next step of the appraisal of the project. During the project appraisal, the Bank staff reviews the EIA's procedural and substantive elements with the borrower. They resolve any outstanding issues, and assess the adequacy of the institutional responsibility for the environmental management based on the findings of EIA. They also ensure whether the mitigation plan is adequately budgeted or not, and determine if the recommended actions are economically analyzed and properly addressed in the project design.

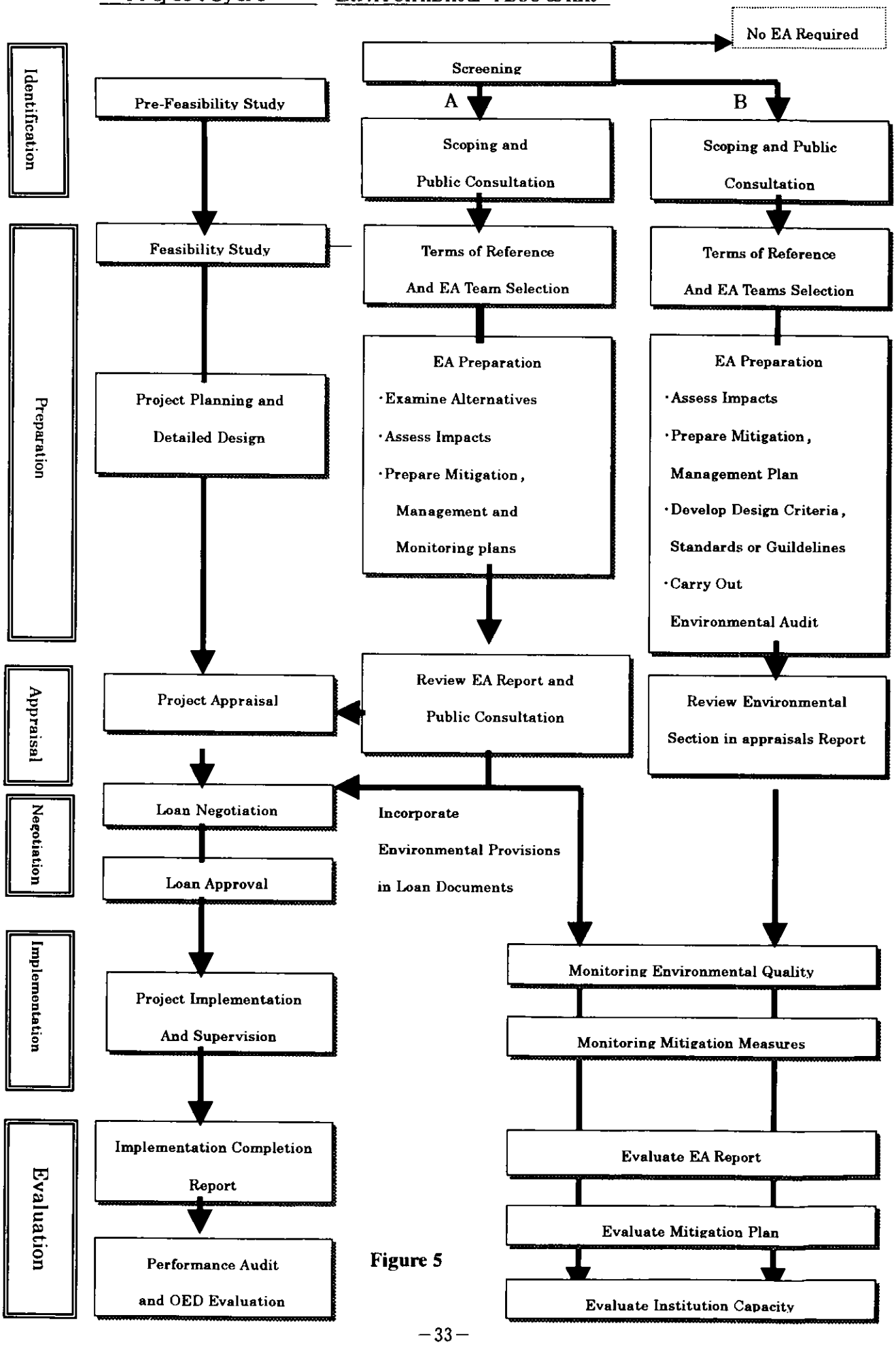

Project Cycle
Environmental Assessment
Identification
Preparation
Appraisal
Negotiation
Implementation
Evaluation
Pre-Feasibility Study
Feasibility Study
Project Planning and Detailed Design
Project Appraisal
Loan Negotiation
Loan Approval
Project Implementation And Supervision
Implementation Completion Report
Performance Audit and OED Evaluation
Screening
No EA Required
A
B
Scoping and Public Consultation
Terms of Reference And EA Team Selection
EA Preparation
·Examine Alternatives
·Assess Impacts
·Prepare Mitigation, Management and Monitoring plans
Review EA Report and Public Consultation
Scoping and Public Consultation
Terms of Reference And EA Teams Selection
EA Preparation
·Assess Impacts
·Prepare Mitigation, Management Plan
·Develop Design Criteria, Standards or Guildelines
·Carry Out Environmental Audit
Review Environmental Section in appraisals Report
Incorporate Environmental Provisions in Loan Documents
Monitoring Environmental Quality
Monitoring Mitigation Measures
Evaluate EA Report
Evaluate Mitigation Plan
Evaluate Institution Capacity

Figure 5

5.2 Environmental Consideration in JICA

Background & Present Circumstances

In 1988, an aid study team “Sectoral Study for Development Assistance – Environment”, was set up within JICA which prepared a report on the implementation of international cooperation in the environmental field and its fundamental coordination of organization and systems in order to strengthen and expand international cooperation on the Japan’s official development assistance program. Based on the proposals of this report, it was decided to develop guidelines available for development projects. Starting with the “Guidelines for Environmental Impact Studies relating to Dam Construction Projects” in 1990, guidelines for environmental consideration in other 20 field including social development, mining development and agricultural development, have been developed as of today.

In 1992 JICA published “Guides for Environmental Consideration in Preparatory and Full-scale Studies.” In addition, number of cases is increased that an expert in charge of environmental consideration is included in the preparatory and full-scale study teams dispatched for developing master plans and feasibility studies for large scale infrastructure projects.

Perspectives of Environmental Consideration Implementation

- The understanding of the concept of environmental impact is not always the same between Japan and the country in question and efforts are required to implement specific environmental considerations that incorporate the contents and scale of the project and regional characteristics at each stage of the preparatory and full-scale study. Accordingly, practical environmental studies and EIA processes need to be implemented strategically based on the experience of environmental consideration experts in charge of the project and with reference to environmental consideration cases implemented in the past.
- It is important that staff in charge of Environmental Consideration involved in the preparatory study team to co-operate with counterpart government agencies carry out the scoping with care as it will be reflected in the operational directive for environmental consideration prepared by the subsequent full-scale study team.
- It is important that the legislation system for the environment in the target country is identified and to discuss with the counterpart agencies and responsible persons at the environmental government agency which items will be important for the EIA concerning the project at hand. It is important to form a consensus with counterpart at this stage.

As projects will be implemented on the land of developing country by the decision making of the developing government, It is important to comply with national laws, guidelines and measures concerning environmental consideration of the said country.

It is, however, the fact that EIA policies and systems vary by each country, for instance some do not have any legislative system, or an existing system has not been properly applied. While recognizing this situation, a flexible approach should be adopted for incorporating environmental considerations, where discussions are held in sufficient consideration of the developing countries' policies and implementation systems and by comprehending the concerned agencies' awareness of the issues in question. In other words, the basic policy of environmental considerations at JICA is to promote sustainable development to improve the life standards of general public and to help promote environmental harmony in accordance with the intentions of the recipient countries.

Preparatory Work in Japan

1. Examination of the Proposals

The following procedures need to be taken if the proposal is examined and the contents do not fall under soft infrastructure proposals of no significant environmental impact such as mapping proposals, electric or telecommunications proposals.

2. Preliminary screening

Based on the proposal documents, national data is collected and analyzed, and Project Description (PD) and Site Description (SD) is developed. Preliminary screening is carried out in Japan based on these documents and where significant environmental impact is probable; an environmental expert is assigned to the preparatory study team. A questionnaire for the government of the recipient country is prepared along with a Scope of Works (S/W) document with environmental related items added to it.

Work at the Project Site

3. Examination of Guidelines of the Recipient Country

At the survey of the project site, first the current Initial Environmental Examination (IEE)/EIA systems and related legislative systems, guidelines etc (from hereon referred to as recipient country guidelines) are examined and confirmed to determine whether the project is a target of the IEE/EIA process or not.

(Case 1) The recipient country's EIA guidelines are fully sufficient.
Project is implemented using the recipient country's Guidelines.

(Case 2) The contents of the recipient country's guidelines are not sufficient.
The recipient country's guidelines are used as a base and JICA screening and scoping items are added.

(Case 3) The recipient country has no EIA guidelines.
JICA guidelines are used.

4. Screening

The contents of the PD, SD and screening developed in Japan are re-examined based on the results of the field study, data analysis etc. Scooping is subsequently carried out on those projects, which as a result of the above IEE or EIA are deemed necessary.

5. Scoping

In order to identify environmental items to be analyzed in the IEE in the case of Master Plan (M/P), and EIA in the case of Feasibility Study (F/S), a checklist is prepared and the degree of impact concerning each environmental item is evaluated. At this point, appropriate use is made of the guide for each item in the guidelines and care is taken to make an accurate and thorough understanding of the estimated environmental impact. The result is recorded in the Scope of Works (S/W) and Minutes of Meeting (M/M). An indication should be added to the Minutes of Meeting (M/M) so that environmental items that may have an impact but could not be determined at this stage can be settled in the full-scale study.

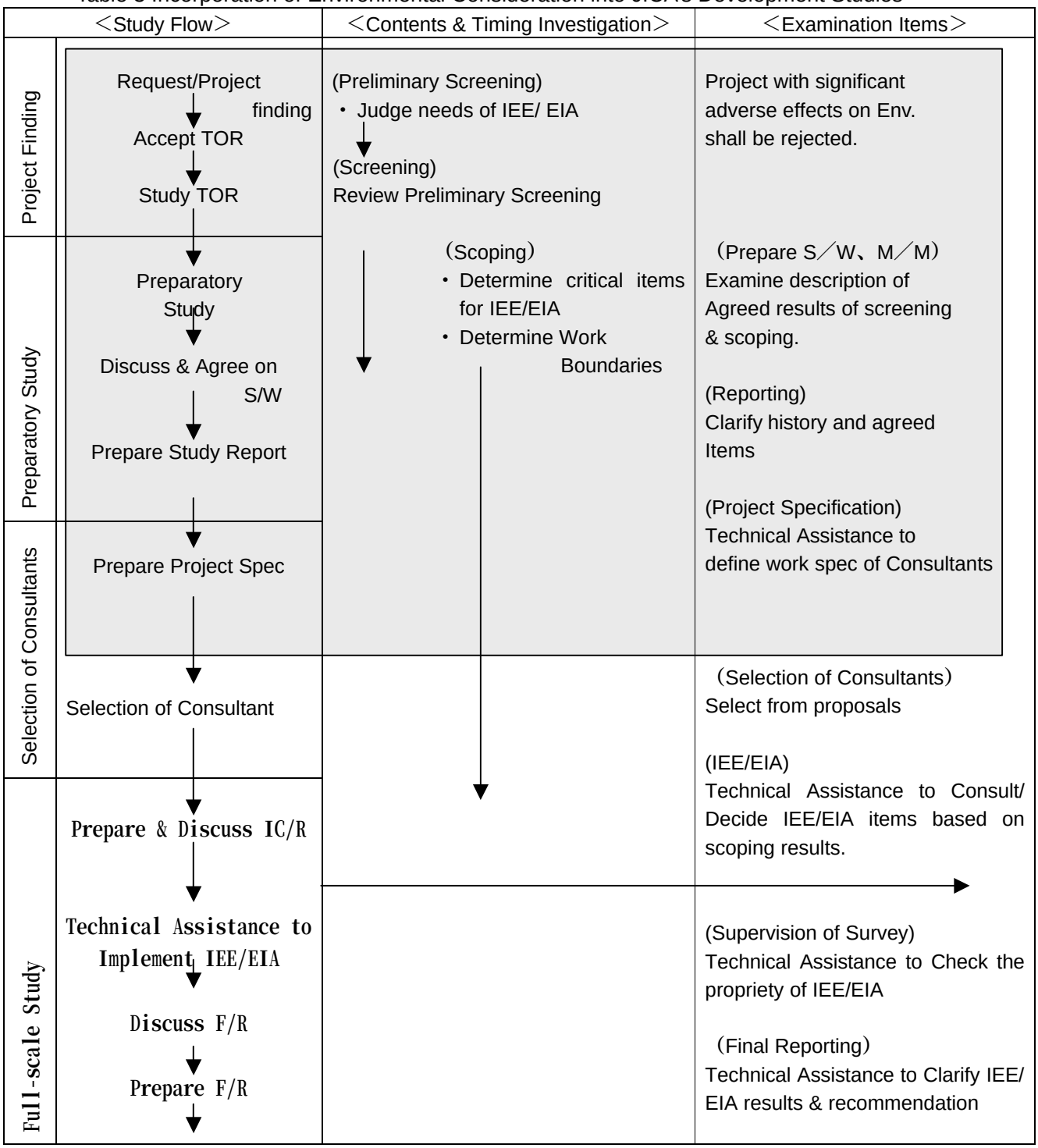
Table2　Project Implementation stage, and Corresponding

<table>
<tr><td colspan="4">Project Implementation Stages</td><td>Environmental Consideration Stages</td></tr>
<tr><td rowspan="4">Implementation by JICA</td><td colspan="3">Preparatory Study</td><td>Preliminary Environmental Survey</td></tr>
<tr><td rowspan="3">Full-scale Study</td><td>Master Plan Study</td><td rowspan="3">Feasibility Study</td><td>Technical Assistance for Initial Environmental Examination (IEE)</td></tr>
<tr><td rowspan="2">Feasibility Study</td><td>Technical Assistance for Environmental Impact Assessment (EIA)</td></tr>
<tr><td></td></tr>
<tr><td rowspan="3">Implementation by Executing Agency</td><td colspan="3">Preparation of Project Implementation Plan (including detailed design)</td><td>Examination of Environmental Conservation Measures</td></tr>
<tr><td colspan="3">Project construction</td><td>Implementation of Environmental Conservation Measures</td></tr>
<tr><td colspan="3">Project Facility Operation</td><td>Environmental Monitoring</td></tr>
</table>

Note:

1. This table does not indicate strict correspondence
2. Some projects do not require IEE or EIA
3. Preparation of the project implementation plan includes the detailed design of the environmental conservation facilities and their construction.

Table 3 Incorporation of Environmental Consideration into JICA's Development Studies



(Source : JICA "Sectoral Study for Development Assistance – Environment",1988

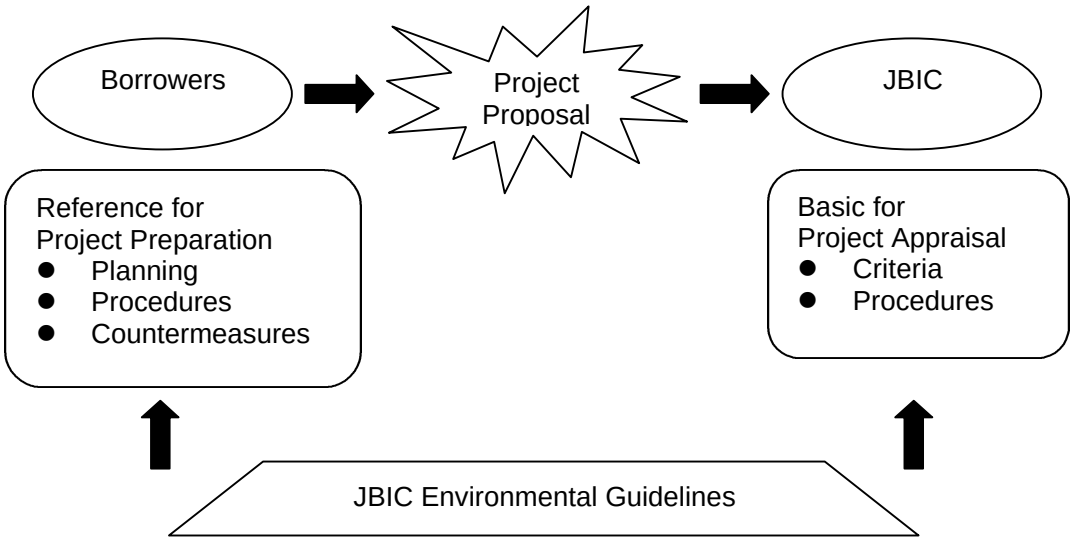
Note : ▭ is mainly covered by the guidelines

5.3 JBIC Environmental Guidelines

*This section covers ODA loans implemented by Japan Bank for International Cooperation, (Ex-OECF - Overseas Economic Cooperation Fund).

OECF, which was the predecessor organization of Japan Bank for International Cooperation (JBIC), published “OECF Environmental Guidelines” in 1989 in order to enhance and define environmental consideration on implementing development assistance project funded by yen loan. And the 2nd revision was published in 1995. This guideline is for the use of both borrowers (project proposer) and OECF. The borrower requested sufficient understanding on the guidelines before making proposal, that means, make necessary pre-study to design project plan fulfills the criteria described in the Guidelines. OECF referred this guideline when appraise the project proposal.

On October 1, 1999, OECF consolidated with Export-Import Bank of Japan (EIBJ) and reborn as the Japan Bank for International Cooperation (JBIC). “JIBC Environmental Guidelines for ODA Loans” hereafter “the Guidelines”, introduced in this section, will be adapted to the evaluation of ODA related projects. JBIC will engage in drafting new guideline available for both ODA projects (ex-OECF tasks) and Other Official Flows (OOF, Ex-EIBJ tasks).



Project Classification & Screening for EIA

The Guidelines introduce classification system as a screening process of EIA in the light of magnitude of expected potential environmental impact. Proposed projects are classified into category A, B or C according to the JBIC criteria stated in the Guidelines.

By this criteria, it is assumed that;

- Category A project may have potential significant environmental impact and detailed assessments are required
- Category B projects may have less environmental impact rather than Category projects, however, still careful environmental considerations are required.
- Category C projects are obviously to have no or very little environmental impact.

Under the Guidelines, only projects classified to category A are subject to EIA. Conceptually, following projects are to be classified to category A;

- Typical Large Scale Infrastructure Projects
  Such as Road & Railroad, Airport, Ports & Harbors, Electric Power Generation, Industry in general etc., or
- Project implemented in/may affect an Environmental Vulnerable Area such as Tropical natural forest, Densely populated area, etc., or
- Character of Project indicates high probability of significant impact.

Classification & appraisal

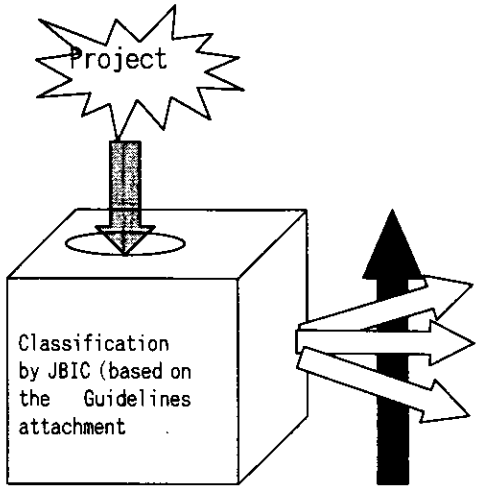
Taking into account a probability of the impacts of projects, the Guidelines defines differentiated procedures for each category as follows;

Category A：
Submission of Environment Impact Assessment Report (hereinafter “EIA Report”) is required. The EIA Report must be accompanied by a summary in English or Japanese. The project is then appraised in the light of the Guidelines.

Category B：
Although submission of an EIA Report is not required, the project is to be appraised in the light of the Guidelines.

Category C：
Submission of an EIA Report is not required, and appraisal in the light of the Guidelines may be omitted.

Classification & Appraisal



	Submission of Environment Impact Assessment Report	Appraisal in the light of JBIC Env. Guidelines
A	レ	レ
B		レ
C		(レ)

Classification is done by JBIC itself at the moment of appraisal of requested projects according to the Guidelines. On the other hand, most of recipient countries have their own EIA systems and unique screening process in their EIA systems. Those screening process include;

- Prescribed inclusion list of projects
  (with/without threshold values of scale of projects)
- Case by case screening procedure
  (with/without negotiation of relevant authorities, initial environmental examination, public consultation)

If a recipient country has appropriate standards based on EIA law or Cabinet approval, etc., to determine whether a project should go through an EIA process, and if those standards are appropriate from JBIC Guidelines* perspective, the standards will be respected.

Final decision is made by JBIC. Therefore even if an EIA is not necessary for a project in a recipient country, or if there are no regulations on EIA in a recipient country, an EIA report should be made and submitted for a project if it is categorized as "A" by the JBIC. In order to avoid mismatch like this, the recipient country should take into account criteria of JBIC and its consideration. Thus coordination of classification of JBIC and recipient countries' screening in very early stage of project preparation is quite essential, because EIA procedures usually need considerable time

and costs.

Under the Guidelines, responsibility of carrying out EIA for category A is falls in to the recipient country, not into OECF, because;

- Principle of Japanese Official Development Assistance is that assistance should be addressed self-help efforts of recipient countries so that ownership of projects is essential.
- Responsible actions, such as planning of project, consulting relevant organizations and public, implementing counter measures etc., could be to be taken only the owner of the project, recipient country.
- In planning a project, site sitting study and feasibility study, which are done by recipient countries for JBIC loan project, should be combined to EIA process.

Assistance for implementing EIA

Guide to Preparing EIA

JBIC is distributing *the Guide to Preparing EIA* for several project types to recipient countries. The Guide summarizes the objectives, assessment items, methods, etc. in order to provide a basis for implementing EIA. The Guide is useful for promoting EIA although it does not preclude the originality of the borrowing country. It is noted that the Guide does not include criteria for JBIC's appraisal. Concerning environmental considerations for JBIC's appraisal, JBIC Environmental Guidelines for ODA Loans must be referred to.

The Guidelines defines the project for Category A, but adopted Engineering Service Loan will categorize as Category B. Request for Engineering Service Loan will be appraisal from the criteria of the Guideline. Therefore, large-scale construction project which requests Engineering Service Loan should prove the project would not bring critical adverse impacts by implementing preliminary study on Environment.

Engineering Service Loan

For large-scale construction project which shall be financed by JBIC, the engineering service loan can be provided in order to perform engineering works such as detailed design. Thus environmental study or survey needed for EIA procedures for the project can be performed by utilize the engineering service loan for the project. Basically engineering service loan is provided for the project of which construction is expected to be

financed by JBIC, it should be avoided that the project is abundant by the outcome of EIA.

Environmental Assessment Support SAPROF

JBIC can perform a supplementary study under the scheme of the Special Assistance for Project Formation (SAPROF)[1] as a SAF[2]. In light of the fact that, more and more often, SAPROF studies include environment-related studies, the JBIC enhanced SAPROF in fiscal 1995. Under this enforcement, if a developing country's EIA is deemed inadequate because of insufficient resources, the JBIC conducts additional and supplementary environmental study. The studies are undertaken by experts in environmental field hired by the JBIC.

The Scheme covers assistance for, 1)identifying recipient's environmental assessment laws, regulations and standards, 2) ascertaining EIA implementation principles and mechanism, 3)ascertaining existing EIA reports and related reports, 4) field survey, sample collection and data analysis, 5) evaluation and forecast, 6)making proposals for mitigating environmental impacts and 7) advice to executing agencies regarding environmental consideration measures, etc...

Notes)

1) SAPROF

SAPROF is one of three categories of SAFs. Owing to inadequate financial or technical resources, a project for which assistance is requested that is basically feasible often cannot be adequately prepared by the developing country. For such projects, JBIC performs a supplementary study named SAPROF.

2) SAF

JBIC carries out SAF in order to assist recipient countries from project formation through completion and ongoing operation, and to carry out projects effectively responding to developing countries' diverse needs. SAF is carried out by consultants employed and dispatched by JBIC.